

AMENDMENTS

In the Claims

Please amend claims 1, 6, 15, and 19-26 as shown herein.

Claims 1-27 are pending and are listed following:

1. **(currently amended)** A method, comprising:
synchronously gathering region data for displaying a region of a server desktop remotely on a client display, wherein the region data describe a shape and a position of the region;
synchronously gathering graphics data for the region, wherein the graphics data describe visual content of the region, and wherein the region data and the graphics data are gathered synchronously so as to maintain an association of the region data and the graphics data; and
sending the region data and the graphics data to a client while maintaining ~~synchronicity~~ the association between the region data and the graphics data.
2. **(original)** The method as recited in claim 1, wherein the region data and the graphics data are gathered in a single display driver.
3. **(original)** The method as recited in claim 2, wherein the region data and the graphics data are gathered and stored in a format of a remoting protocol.

1 4. **(original)** The method as recited in claim 3, wherein the region
2 data is synchronously gathered by a display driver-level window object created to
3 contain the shape and position information.

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5 5. **(original)** The method as recited in claim 3, wherein the graphics
6 data is synchronously gathered by the display driver.

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8 6. **(currently amended)** The method as recited in claim 5,
9 wherein the display driver synchronously gathers the graphics data by gathering
10 drawing commands issued to a graphics device interface subsystem of an
11 operating system of the server.

12
13 7. **(original)** The method as recited in claim 1, wherein the sending
14 further includes forming a sequence of region data and graphics data, wherein the
15 region data precedes the graphics data.

16
17 8. **(original)** The method as recited in claim 7, further comprising
18 sequencing the region data to precede the graphics data using rules of a remoting
19 protocol.

20
21 9. **(original)** The method as recited in claim 8, further comprising
22 receiving the region data and the graphics data for display on a client and
23 displaying the graphics data according to the preceding region data.

1 **10. (previously presented)** The method as recited in claim 1,
2 wherein in response to a bandwidth for the sending becoming too low to send the
3 region data and the graphics data, reducing the amount of data to send by sending
4 no region data and sending graphics data for the entire server desktop.

5
6 **11. (previously presented)** The method as recited in claim 1,
7 wherein in response to a bandwidth for the sending becoming too low to send the
8 region data and the graphics data, reducing the amount of data to send by sending
9 region data for a subset of the region and by sending graphics data for the subset.

10
11 **12. (original)** The method as recited in claim 11, wherein the subset
12 has a geometry that requires less region data to describe.

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14 **13. (previously presented)** The method as recited in claim 1,
15 wherein in response to a bandwidth for the sending becoming too low to send the
16 region data and the graphics data, reducing the amount of data to send by
17 surrounding the region with a larger region that requires less data to describe and
18 enlarging the visual content of the region to fit the larger region.

19
20 **14. (original)** The method as recited in claim 1, further comprising:
21 receiving the region data and the graphics data; and
22 displaying the graphics data as graphics in a region of a client desktop
23 described by the region data.

1 **15. (currently amended)** A remoting synchronization engine,
2 comprising:

3 a region data gathering module to ~~syn~~chronously gather region data
4 describing a region of a display desktop of a server to be remotely displayed on a
5 client, wherein the region data describe a shape and a desktop position of the
6 region;

7 a graphics data gathering module to ~~syn~~chronously gather graphics data,
8 wherein the graphics data describe a visual content of the region, and wherein the
9 region data and the graphics data are gathered synchronously so as to maintain an
10 association of the region data and the graphics data; and

11 a display driver at the server to collect the ~~syn~~chronously gathered region
12 data and the ~~syn~~chronously gathered graphics data and to send the region data and
13 the graphics data from the server to the client while maintaining ~~syn~~chronicity the
14 association between the region data and the graphics data.

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16 **16. (original)** The remoting synchronization engine as recited in
17 claim 15, further comprising a data output scheduler associated with the display
18 driver to send the region data and the graphics data to the client in a sequence,
19 wherein the region data precedes the graphics data synchronized with the region
20 data.

1 **17. (original)** The remoting synchronization engine as recited in
2 claim 16, further comprising a bandwidth compensator to maintain security with
3 respect to the synchronized region data and the synchronized graphics data during
4 a condition of low bandwidth.

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6 **18. (original)** The remoting synchronization engine as recited in
7 claim 15, further comprising a data gathering scheduler to schedule synchronous
8 gathering of region data and graphics data synchronized to the region data.

9
10 **19. (currently amended)** A synchronized data receiver,
11 comprising:

12 a region subsystem to receive region data synchronized with graphics data
13 from a server, the region data and the graphics data gathered synchronously from a
14 server display so as to maintain an association of the region data and the graphics
15 data, and the region subsystem to designate a region of a client display based on
16 the region data; and

17 a graphics subsystem to receive the graphics data synchronized with the
18 region data and to display graphics in the region based on the graphics data.
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1 **20. (currently amended)** A synchronized remoting system,
2 comprising:

3 a means for producing visual content at a server to be remotely displayed
4 on a client;

5 a means for designating a visual region of the visual content;

6 a means for gathering region data describing a geometry of the visual
7 region, ~~wherein gathered region data is in synchronicity with graphics data~~
8 ~~describing the visual content in the visual region;~~

9 a means for gathering the graphics data describing the visual content in the
10 visual region, wherein gathered the graphics data is ~~in-synchronicity~~ gathered
11 synchronously with the region data so as to maintain an association of the region
12 data and the graphics data describing the geometry of the visual region; and

13 a means for sending the region data and the graphics data from the server to
14 the client, wherein region data in synchronicity with particular graphics data
15 precedes the particular graphics data.

16
17 **21. (currently amended)** The synchronized remoting system as
18 recited in claim 20, further comprising:

19 a means for receiving the region data and the graphics data at ~~[[a]]~~ the
20 client; and

21 a means for displaying the graphics data as graphics in a region of a client
22 desktop described by the region data.

1 **22. (currently amended)** A ~~data stream structure~~ method,
2 comprising:

3 transmitting region data describing geometry of a visual region to be
4 remotely displayed, wherein the region data recurs at regular intervals in ~~the data a~~
5 data stream to update the geometry; and

6 transmitting graphics data describing visual content of the visual region,
7 wherein the graphics data recurs at the regular intervals to update the visual
8 content and wherein the region data of each regular interval precedes the graphics
9 data of the corresponding regular interval in the data stream ~~structure~~.

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11 **23. (currently amended)** The ~~data stream structure~~ method as
12 recited in claim 22, wherein the region data and the graphics data for each regular
13 interval are gathered synchronously so as to maintain an association of the region
14 data and the graphics data ~~in synchronicity with each other~~.

1 **24. (currently amended)** A method, comprising:

2 synchronously gathering region data and graphics data synchronously so as
3 to maintain an association of the region data and the graphics data from ~~for~~ a
4 visual region of a computing server display to be remotely displayed on a client
5 display;

6 if bandwidth is sufficient for sending the region data and the graphics data
7 to the client, then sending the region data and the graphics data to the client,
8 wherein a region datum in synchronicity with a graphics datum is sent before the
9 graphics datum;

10 if bandwidth is not sufficient for sending the region data and the graphics
11 data to the client, then

12 (a) if the client owns an entirety of information displayable on
13 the computing server display, then sending only graphics data describing the entire
14 visual content of the computing server display; but

15 (b) if the client does not own an entirety of information
16 displayable on the computing server display, then

17 (i) if visual content of the visual region can be
18 truncated, then selecting a smaller visual region inscribed in the visual region and
19 sending synchronized region data and synchronized graphics data associated with
20 the smaller visual region, but

21 (ii) if the visual content of the visual region cannot
22 be truncated, then selecting a larger visual region circumscribing the visual region,
23 sending synchronized region data and synchronized graphics data associated with
24 the larger visual region, and resizing visual content of the visual region to fit the
25 larger visual region.

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2 **25. (currently amended)** One or more computing device readable
3 media containing instructions that are executable by a computing device to
4 perform actions comprising:

5 ~~synchronously~~ gathering region data for displaying a visual region of a
6 server desktop remotely on a client display, wherein the region data describe a
7 shape and a position of the region;

8 ~~synchronously~~ gathering graphics data for the visual region, wherein the
9 graphics data describe a visual content of the visual region, and wherein the region
10 data and the graphics data are gathered synchronously so as to maintain an
11 association of the region data and the graphics data to obtain synchronized region
12 data and synchronized graphics data, wherein the synchronized graphics data
13 describe a visual content of the visual region; and

14 sending the ~~synchronized~~ region data and the ~~synchronized~~ graphics data to
15 the client while maintaining ~~synchronicity~~ the association between the region data
16 and the graphics data.

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18 **26. (currently amended)** The one or more computing device
19 readable media as recited in claim 25, wherein maintaining ~~synchronicity~~ the
20 association further comprises preceding graphics data to be sent to the client with
21 the region data synchronized to the graphics data.

1 **27. (original)** The one or more computing device readable media as
2 recited in claim 25, wherein the region data and the graphics data are
3 synchronously gathered into one display driver.
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